The Agricultural Health Study: Collaborative Health and Exposure Research for the Agricultural Community

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The Agricultural Health Study (AHS) is a prospective epidemiological study to identify occupational, lifestyle, and genetic factors that may affect the rate of cancer and other diseases among farmers and their families and among commercial pesticide applicators. The AHS is a collaborative effort between the NCI, the NIEHS, the U.S. Environmental Protection Agency (U.S. EPA), and the NIOSH. Several academic institutions and contract research organizations are also collaborating in this research. Scientists from the U.S. EPA conducted a substudy within the AHS, titled the Pesticide Exposure Study, in collaboration with other research organizations. The Pesticide Exposure Study was designed to assess exposure intensity algorithms developed to classify pesticide exposure using AHS questionnaire data and to identify factors leading to pesticide exposures for pesticide applicators and their families. A goal of the exposure study was to provide real-world pesticide exposure data for improving survey questionnaires and exposure classification procedures in this important epidemiological study. The landmark AHS will provide important information to the U.S. EPA and other stakeholders on health and exposures in the agricultural community that will improve risk assessment and regulatory decision-making. Several examinations of pesticide use and cancer, respiratory disease, and other health outcomes have been published to date. Research findings will continue to be reported over the next several years to identify factors that reduce exposures and lead to better health in the farming community. Results from the Pesticide Exposure Study are being used by the NCI and NIEHS to assess and refine exposure classification in the epidemiological study in order to improve analyses of relationships between exposure and disease. Exposure study results have been used in the development of an exposure questionnaire for use in the next five-year phase of the AHS epidemiological study. Study results will also be used by the U.S. EPA Office of Pesticide Programs to better understand agricultural pesticide applicator and family exposure factors. Plans are underway to develop outreach materials for pesticide safety educators, cooperative extension

services, and agricultural pesticide applicators to describe work and hygiene practices associated with lower pesticide exposures in the Pesticide Exposure Study.

Although this work was reviewed by the U.S. EPA and approved for publication, it may not necessarily reflect official Agency policy.